

REMARKS

Claims 1 to 4, 6 to 16, and 24 to 52 are pending in the application. Claims 1, 16, 31 and 45 are independent.¹ Favorable reconsideration and further examination are respectfully requested.

Initially, the claims were objected to and rejected under §112, second paragraph, for the reasons noted on pages 2 to 4 of the Office Action. The foregoing amendments are believed to address these objections. Accordingly, withdrawal thereof is respectfully requested.

Independent claim 1 was rejected over U.S. Patent No. 5,497,505 (Koohgoli) in view of U.S. Patent Publication No. 2004/0192200 (Karabinis). As shown above, independent claim 1 has been amended to incorporate features of former dependent claim 5, which was rejected also over U.S. Patent No. 5,774,805 (Zicker). Independent claim 1 now recites:

1. A method of establishing a radio connection in a satellite communication system that comprises remote stations coupled to a central station by a satellite network, wherein different remote stations are located in different geographic domains, the method being performed by a remote station in a geographic domain and comprising:
 - receiving, from the central station, a list of information about available satellite network resources for one or more geographic domains;
 - identifying satellite network resources needed to establish the radio connection, wherein identifying comprises:
 - determining a current geographic location of the remote station;
 - referencing a database of geographic domains using the geographic location to identify the geographic domain with which the remote station is associated; and
 - referencing the list of information using the geographic domain to establish which satellite network resources are available to the remote station;
 - notifying the central station about the satellite network resources that are available to the remote station;
 - seizing the satellite network resources needed to establish the radio connection to thereby establish the radio connection; and
 - receiving, from the central station, an updated version of the list of information that has been updated to reflect seizing of the satellite network resources.

¹ The Examiner is urged to independently confirm this recitation of the pending claims.

The applied art is not understood to disclose or to suggest at least the underlined features above.

In this regard, page 9 of the Office Action admits that Koohgoli and Karabinis do not "expressly teach" features similar to these. Zicker, however, was cited to make up for these deficiencies.

In particular, the Office Action states:

Zicker teaches that it is a well known concept to publish a list comprising information about more than one domain (Col 8:lines 11-25 and Col 5:line 63-Col 6:line 3, cellular and cordless), and wherein the identifying step comprises the steps of: determining the current geographic location of the remote station (Col 5:line 63-Col 6:line 3, based on where the handset currently resides); referencing a database of geographic domains with the determined location to identify the domain to which the remote station is to be associated (Col 5:line 63-Col 6:line 3 and Col 8:lines 11-25, the database contains information on available channels for the different domains (i.e. cellular/cordless)); and referencing the list of information with the identified domain to thereby establish which network resources are available for the particular domain (Col 5:line 63-Col 6:line 3 and Col 8:lines 11-25). Therefore it would have been obvious to modify the combination of Koohgoli and Karsbins with Zicker at the time of the invention such that particular domains may be arranged to have a corresponding list of available channels as taught by Zicker such that all the available resources at the current location may be determined so that unused channels may be quickly identified to efficiently use the radio communication spectrum in an efficient manner with minimal delays.

Below we reproduce the portions of Zicker relied upon in the Office Action:

Receiver 38, which is connected to controller 36, is configured to receive signaling data and user communications over a channel selected from pool of channels 28 (see FIG. 3). For cellular mode operation, the channel will be selected from a cellular subset 30 assigned to the cell 14 where handset 18 currently resides. For cordless mode operation, the channel will be selected from cordless subset 32.²

² Col. 5, line 63 to col. 6, line 3

Available channel list 62 is a data list stored in memory 46 (see FIG. 4) and updated from time to time. List 62 identifies the channels which handset 18 may use in originating a message to be transmitted to its cordless base station 22. List 62 is a subset of cordless subset 32 (see FIG. 3). Through the operation of tasks discussed below, list 62 is formed from cordless subset 32 by handset 18, and possibly influenced by cordless base station 22, to identify channels that are unused by cellular land station 20. In particular, below-described tasks cause handset 18 to monitor each channel in cordless subset 32 to determine which of the cordless subset 32 channels also belong to the particular cellular subset 30 (see FIG. 3) currently in effect at the location where the home cordless coverage area 16 resides.³ (emphasis added)

As we understand it, the “available channel list” identifies channels over which a handset may communicate, and handset 62 of Zicker references its available channel list 62 to determine which channels it may use. While geography may play a part in which channels may be selected in that all channels are within cell 14, contrary to what is said in the Office Action, there is no disclosure or suggestion in Zicker about referencing a database of geographic domains, much less doing so in order to identify a geographic domain and to use that geographic domain to establish which satellite network resources are available.

Furthermore, we note that while Zicker does describe a network, Zicker does not disclose or suggest use of its processes in the context of a satellite communication system.

For at least the foregoing reasons, even if Zicker were combined with Koohgoli and Karabinis, the resulting hypothetical combination would fail to disclose or to suggest at least the features of claim 1. Accordingly, claim 1 is believed to be patentable over the applied art.

Independent claim 31 is an apparatus counterpart to independent claim 1.

Independent claim 16 was rejected over Koohgoli and Karabinis. Independent claim 16 has been amended, and now reads as follows:

16. A method, performed by a central station, of allocating satellite network resources in a satellite communication system comprising remote stations coupled to the central station by a

³ Col. 8, lines 11 to 25

satellite network, wherein different remote stations are located in different geographic domains, the method comprising:

- establishing a list of information about available satellite network resources for one or more of the geographic domains;
- publishing the list of information for access by remote stations in the one or more geographic domains;
- receiving, from a remote station, a notification indicating that at least some of the satellite network resources have been seized by the remote station;
- updating the list of information about available satellite network resources to reflect seizing by the remote station; and
- communicating the updated list only to remote stations in the one or more geographic locations.

The applied art is not understood to disclose or to suggest at least the underlined features above.

In this regard, the Office Action relies on Karabinis for its alleged disclosure of updating a list.

Specifically, the Office Action states:

Karabinis teaches that it is well known in the art for a base station (i.e. central station) update a list of available resources to thereby reflect the seizing of available radio channels and sending the list to the remote station (Par 65:lines 1-12, available channels list is updated and broadcast). Therefore it would have been obvious to modify Koohgoli with Karabinis at the time of the invention to allow a mobile station to allow for dynamic allocation and selection of traffic channels which are suitable for transmission at both ends of the transmission link.

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Paragraphs 0064 and 00 65 of Karabinis are shown below.

[0064] FIGS. 3A and 3B illustrate protocols that a source radioterminal may use to establish communications with a base station and/or other infrastructure, according to various embodiments of the invention. In accordance with FIG. 3A, after a source radioterminal's PtS function has been activated, the source radioterminal may read an "available channels" list that may be broadcast by the serving base station. The source radioterminal may also read, from time to time, the available channels list while it is in idle mode (prior to the activation of the PtS function). The base station may also pre-assign (or pre-designate) a channel (or channels) to the source radioterminal following the source radioterminal's registration with the base station.

[0065] The source radioterminal may pick one of the available channels and may send a message on that channel. The choice of channel may be made by the radioterminal randomly, pseudo-

⁴ Office Action, page 6

randomly and/or in a predetermined way. The base station may be monitoring a measure of activity on all channels of the available channels list and may thus detect that a particular channel of the available channels list has been seized by a radioterminal. The base station may, upon detection that a particular channel of the available channels list has been seized, delete that channel from the available channels list and accordingly update the available channels list broadcast. In contrast to the above channel assignment methodology, FIG. 3B illustrates an alternate protocol whereby the source radioterminal, following activation of its PtS function, requests channel assignment from the system.

While it is true that Karabinis does update its “available channels list broadcast”, we do not read Karabinis to do so on a geographic basis, e.g., to communicate the updated list only to remote stations in one or more geographic locations in which is also located a remote station that seized satellite network resources. Accordingly, we believe that claim 16 is patentable over the applied art. Independent claim 45 is an apparatus counterpart to method claim 16.

Dependent claims are also believed to define patentable features. Each dependent claim partakes of the novelty of its corresponding independent claim and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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In view of the foregoing amendments and remarks, we respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

The undersigned attorney can be reached at the address shown above. Telephone calls regarding this application should be directed to 617-521-7896.

Please apply any fee shortage or excess to deposit account 06-1050, referencing Attorney Docket No. 19914-002US1.

Respectfully submitted,

March 11, 2010
Date: _____

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